

SECTION 32 9223

SODDING

LANL MASTER SPECIFICATION

When editing to suit project, author shall add job-specific requirements and delete only those portions that in no way apply to the activity (e.g., a component that does not apply). To seek a variance from applicable requirements, contact the ESM Civil/Architectural POC.

When assembling a specification package, include applicable specifications from all Divisions, especially Division 1, General Requirements.

Delete information within "stars" during editing.

Specification developed for ML-3 projects. For ML-1 / ML-2, additional requirements and QA reviews are required.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Preparation of subsoil.
- B. Soil Amendments.
- C. Fertilizing.
- D. Sod installation.
- E. Maintenance.

1.2 SUBMITTALS

- A. Submit the following in accordance with the requirements of Section 01 3300:
 - 1. Sod certification for grass species and name and location of sod source.
 - 2. Sodding schedule, including dates and type of work to be performed. Once accepted, revise schedule only as approved in writing, after documentation of delays.
 - 3. Sample of materials for approval prior to ordering and name of supplier of soil amendments materials.

1.3 QUALITY ASSURANCE

- A. Sod: Minimum age 18 months, with root development that will support its own weight without tearing, when suspended vertically by holding the upper two corners.
- B. Sod Producer: Company specializing in sod production and harvesting with minimum 5 years experience, and certified by the State of New Mexico.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Time delivery so that sod will be placed within 48 hours after stripping. Protect against drying and breaking of rolled strips.
- B. Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored on site.

1.5 SITE CONDITIONS

- A. Proceed with and complete landscape work as rapidly as portions of site become available, working within seasonal limitations for each kind of landscape work required.
- B. Hand excavate, as required. Maintain grade stakes set by LANL until removal is mutually agreed upon with Contract Administrator.
- C. When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions consult Contract Administrator before planting.
- D. Plant or install materials during normal planting seasons for each type of landscape work required. Correlate planting with specified maintenance periods to provide maintenance from date of final acceptance.

PART 2 PRODUCTS

2.1 SOIL AMENDMENTS

- A. Provide minimum 2 year old decomposed sawdust containing no debris or other deleterious materials. Maximum size of 1/4 inch in any one dimension.
- B. Spread starter fertilizer at a rate of 4 lbs per 1,000 square feet, prior to placing sod.
- C. Provide clean sand, topsoil, or mixture installed on prepared subgrade as a bed and top dressing for solid grass sod. Thickness, and soil amendments to be incorporated as shown on the Drawings.

2.2 GRASS MATERIALS

- A. Provide strongly rooted sod, not less than 18 months old and free of weeds and undesirable native grasses and machine cut to pad thickness of 3/4 inch (plus or minus 1/4 inch), excluding top growth and thatch. Provide sod capable of growth and development when planted. Cut sod pieces a minimum of 18 inches wide.
- B. Provide sod primarily composed of tall fescue varieties. Do not use bluegrass. Tall fescue sod blend shall be as follows:

1/3 Monarch Tall Fescue
1/3 Olympic Tall Fescue
1/3 Apache Tall Fescue

PART 3 EXECUTION

3.1 PREPARATION

A. Preparation for Sodding

1. Where sod is to be planted in area that has not been altered or disturbed by excavating, grading or stripping, prepare area as follows: Strip existing grass, vegetation and turf. Dispose of such material in area(s) designated by LANL. Do not turn over into soil being prepared for sod. Till area to be sodded to 4 inch depth.
2. Bring excavated or embankment areas to be sodded to an even grade, and shaped to provide drainage. Compact evenly to prevent uneven settlement after installation and watering.
3. Clean areas to be sodded of roots, plants, clods, stones, clay lumps, and other extraneous materials harmful or toxic to plant growth.
4. Spread pre-mixed soil material to an even 2 inch minimum depth over subgrade. Rototill pre-mixed soil into the top 4 inches of subgrade, thoroughly mixing in cross directions. Drag to even grade, then roll for firmness with a minimum 300-pound roller.
5. Rake tilled area and remove stones over 1 inch in any dimension, sticks, roots, rubbish and other extraneous matter.
6. Limit preparation to area which will be planted within 48 hours after preparation.
7. Restore grading to specified condition if eroded or otherwise disturbed after fine grading and prior to sodding.

B. Delay application of fertilizer, if sod planing will not follow within 24 hours.

3.2 SODDING OPERATIONS

- A. Lay sod within 48 hours from time of stripping. Do not plant dormant sod or on frozen ground.
- B. If soil is dry, moisten areas before sodding. Water thoroughly and allow surface moisture to dry. Do not create a muddy soil condition.
- C. Lay sod to form a solid mass with tightly fitted joints. Lay sod over moistened soil, lightly raking the soil ahead of each sod strip. Butt ends and sides of sod strips; do not overlap. Stagger strips to off-set joints in adjacent courses. Lay sod parallel to contours of slope. Work from boards to avoid damage to subsoil or sod. Tamp firmly and evenly by hand to ensure contact with subsoil. Work sifted topsoil or sand into minor cracks between pieces of sod; remove excess to avoid smothering grass. Roll entire area with weighted hand roller.
- D. Water sod thoroughly with a fine spray immediately after planting.
- E. Refer to Drawings for anchorage details when sod is laid on a slope.

3.3 MAINTENANCE

- A. Begin maintenance immediately after planting.
- B. Maintain lawns for not less than the period stated below, and longer as required to establish an acceptable lawn.
 - 1. Sodded lawns to be maintained not less than 30 days after final acceptance, or through the September 15 growing season, whichever is longer.
 - 2. Maintain lawns by watering, fertilizing, weeding, mowing, trimming and other operations such as rolling, regrading and replanting as required to establish a smooth, acceptable lawn, free of eroded or bare areas. Irrigate sodded areas by means of the automatic underground irrigation system as often as necessary to promote healthy grass growth until a thick, even stand of grass has been obtained. Mow the lawn when the grass is over 2-1/2 inches high for first cutting.

3.4 CLEANUP AND PROTECTION

- A. During the work, keep pavements clean and work area in an orderly condition.
- B. Protect work and materials from damage due to sodding operations, operations by other contractors and trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair or replace damaged work as directed.

3.5 INSPECTION AND ACCEPTANCE

When inspected work does not comply with requirements, replace rejected work and continue specified maintenance until reinspected by LANL and found to be acceptable. Remove rejected sod and materials promptly from project site.

END OF SECTION

Do not delete the following reference information:

FOR LANL USE ONLY

This project specification is based on LANL Master Specification 32 9223 Rev. 0, dated January 6, 2006.